

CHAPTER VI JIG CLAMPING DEVICES

The clamping devices used in connection with jigs and fixtures may either clamp the work to the jig or the jig to the work, but very frequently the clamps simply hold in place a loose or movable part in the jig, which can be swung out of the way to facilitate removing the work from, and inserting it in, the jig. The work itself is in turn clamped by a set-screw or other means passing through the loose part, commonly called the leaf.

Types of Clamps. — The simplest form of clamping device is the so-called clamp, of which a number of different forms are commonly used. Perhaps the most common of all clamps is the one shown in Fig. 1. This kind of clamp is also commonly termed a strap. It is simple, cheap to make, and, for most purposes, it gives satisfactory service. The clamp shown in Fig. 2 is made on practically the same principle as the one shown in Fig. 1, but several improvements have been introduced. The clamp is recessed at the bottom for a distance b , to a depth equal to a , so as to give a bearing only on the two extreme ends of the clamp. Even if the strap should bend somewhat, on account of the pressure of the screw, it would be certain to bear at the ends and exert the required pressure on the object being clamped. This strap is also provided with a ridge at J , located centrally with the hole for the screw. This insures an even bearing of the screw-head on the clamp, even if the two bearing points at each end of the clamp should vary in height, as illustrated in Fig. 3. The clamp in Fig. 1 would not bind very securely, under such circumstances, and the collar of the screw would be liable to break off, as the whole strain, when tightening the screw, would be put on one side.

A further improvement in the construction of this clamp may be had by rounding the under side of the clamping points